THE EFFECTIVENESS OF EXPERT SYSTEMS IN MARKETING EDUCATION

Michelle M. McCann, University of Lethbridge, Faculty of Management, Lethbridge, Alberta, T1K 3M4, Canada, (403-329-5175).
Rajiv Vaidyanathan, Department of Management Studies, University of Minnesota at Duluth, 110 School of Business and Economics, 10 University Drive, Duluth, Minnesota 55812-2496, (218-726-6817).
Linda J. Morris, College of Business and Economics, University of Idaho, Moscow, Idaho 83843, (208-885-7159).

ABSTRACT

Expert systems technology for business has proliferated in development and use in recent years. Expert systems for educational use in business-related courses are still in the beginning stages of development. In this study an expert system developed to help with the decisions regarding the correct choice of a statistical test was used. Students in several sections of an introductory marketing research class participated, using either a flowchart from a textbook or the expert system to decide on the correct statistical test for some practice problems.
The students had been tested before to determine their dominant learning style. Prior studies have indicated that students with different learning styles react differently to instruction methods. Kolb's Learning Style Inventory describes four types of learners: Accommodators who prefer active experimentation and concrete experience.
Divergers who prefer concrete experience and reflective observation.
Assimilators who prefer reflective observation and abstract conceptualization.
Converger who prefer abstract conceptualization and active experimentation.
Based on the learning styles literature it was predicted that Convergers would perform better with the flow chart. Accommodators would show the least improvement of all the groups and that the use of help screens, which were provided in the expert system, would help performance.
Help screens did significantly improve students' performance. Convergers using the expert system did significantly worse than those using the flowchart. Accommodators in both groups showed the overall lowest improvement. Neither the expert system nor the book material improved scores significantly among Accommodators. Future research should investigate if these findings can be replicated using other material than statistical test selection. These research results support the notion that educators need to consider their students' learning styles when deciding on the use of computer-aided instructional tools in their classes.